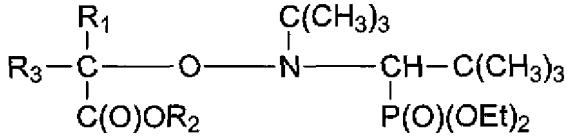
Amendments to the Claims

This listing of claims will replace the prior version in the application.

1-10 (canceled)

11. (currently amended) A process for the miniemulsion, microemulsion or emulsion polymerization of at least one monomer which can be polymerized ~~by the radical route~~ via radical polymerization, characterized in that it is carried out in the presence of at least one water-soluble alkoxyamine, dissolved in the aqueous phase of a miniemulsion, microemulsion or emulsion, selected from monoalkoxyamines of formula (I)



(I)

in which

* R_1 and R_3, which are identical or different, are selected from linear or branched alkyl radical having a number of carbon atoms ranging from 1 to 3,

* R_2 is selected from alkali metal, ammonium ion.

12. (canceled)

13. (currently amended) The process as claimed in claim ~~12~~ 11 characterized in that said alkali metal is selected from Li, Na or K.

14. (currently amended) The process as claimed in claim ~~12~~ 11 characterized in that said ammonium ion is selected from NH_4^+, NBu_4^+ or $NHBu_3^+$.

15. (currently amended) The process as claimed in claim ~~12~~ 11 characterized in that m is greater than or equal to 2.

16. (currently amended) The process as claimed in claim 11, characterized in that the water-soluble alkoxyamine is ~~introduced into the polymerization medium~~ present in the aqueous phase of a miniemulsion, microemulsion or emulsion in a proportion of 0.01% to 10% by weight with respect to the weight of said at least one monomer.

17. (currently amended) The process as claimed in claim 11, characterized in that the water-soluble alkoxyamine is ~~introduced into the polymerization medium~~ present in the aqueous phase of a miniemulsion, microemulsion or emulsion in a proportion of 0.1 to 5% by weight with respect to the weight of said at least one monomer.

18. (currently amended) The process as claimed in claim 11, characterized in that said at least one monomer is selected from monomers exhibiting a carbon-carbon double bond capable of polymerizing ~~by the radical route~~ via radical polymerization.

19. (previously presented) The process as claimed in claim 18, characterized in that said at least one monomer is selected from the group consisting of vinylaromatic monomers, styrene, substituted styrene, α-methylstyrene, sodium styrenesulfonate, dienes, butadiene, isoprene, acrylic monomers, acrylic acid or its salts, alkyl acrylates, cycloalkyl acrylates, aryl acrylates, methyl acrylate, ethyl acrylate, butyl acrylate, ethylhexyl acrylate, phenyl acrylate, hydroxyalkyl acrylates, 2-hydroxyethyl acrylate, ether alkyl acrylates, 2-methoxyethyl acrylate, alkoxy- glycol acrylates, aryloxypolyalkylene glycol acrylates, methoxypolyethylene glycol acrylates, ethoxypolyethylene glycol acrylates, methoxypolypropylene glycol acrylates, methoxypolyethylene glycol-polypropylene glycol acrylates, aminoalkyl acrylates, 2-(dimethylamino)ethyl acrylate (ADAME), acrylates of amine salts, [2-(acryloyloxy)ethyl]trimethylammonium chloride, [2-(acryloyloxy)ethyl]-trimethylammonium sulfate, [2-(acryloyloxy)ethyl]dimethylbenzylammonium chloride, [2-(acryloyloxy)ethyl]dimethylbenzylammonium sulfate, fluoroacrylates, silylated acrylates, phosphorus-comprising acrylates, alkylene glycol acrylate phosphates, methacrylic monomers, methacrylic acid or its salts, alkyl methacrylate, cycloalkyl methacrylate, alkenyl methacrylate, aryl methacrylates, methyl methacrylate, lauryl methacrylate, cyclohexyl methacrylate, allyl methacrylate, phenyl methacrylate, hydroxyalkyl methacrylates, 2-hydroxyethyl methacrylate, 2-hydroxypropyl methacrylate, ether alkyl methacrylates, 2-ethoxyethyl methacrylate, alkoxy-glycol methacrylates, aryloxypolyalkylene glycol methacrylates, methoxypolyethylene glycol methacrylates, ethoxypolyethylene glycol methacrylates, methoxypolypropylene glycol methacrylates, methoxypolyethylene glycol-polypropylene glycol methacrylates, aminoalkyl methacrylates, 2-(dimethylamino)ethyl methacrylate (MADAME), methacrylates of amine salts, [2-(methacryloyloxy)ethyl]trimethylammonium chloride, [2-(methacryloyloxy)ethyl]trimethylammonium sulfate, [2-(methacryloyloxy)-ethyl]dimethylbenzylammonium chloride, [2-(methacryloyloxy)-

ethyl]dimethylbenzylammonium sulfate, fluoromethacrylates, 2,2,2-trifluoroethyl methacrylate, silylated methacrylates, 3-methacryloyloxypropyltrimethylsilane, phosphorus-comprising methacrylates, alkylene glycol methacrylate phosphates, hydroxyethylimidazolidone methacrylate, hydroxyethylimidazolidinone methacrylate, 2-(2-oxo-1-imidazolidinyl)ethyl methacrylate, acrylonitrile, acrylamide, substituted acrylamides, 4-acryloylmorpholine, N-methylolacrylamide, acrylamidopropyltrimethylammonium chloride (APTAC), acrylamidomethylpropanesulfonic acid (AMPS) or its salts, methacrylamide, substituted methacrylamides, N-methylolmethacrylamide, methacrylamidopropyltrimethylammonium chloride (MAPTAC), itaconic acid, maleic acid or its salts, maleic anhydride, alkyl glycol maleates, alkoxy-glycol maleates, aryloxypolyalkylene glycol maleates, alkyl glycol hemimaleates, alkoxy-glycol hemimaleates, aryloxypolyalkylene glycol hemimaleates, vinylpyridine, vinylpyrrolidinone, (alkoxy)poly(alkylene glycol) vinyl ethers, (alkoxy)poly(alkylene glycol) divinyl ethers, methoxypoly(ethylene glycol) vinyl ether, poly(ethylene glycol) divinyl ether, olefinic monomers, ethylene, butene, hexene and 1-octene, fluoroolefinic monomers, vinylidene monomers, vinylidene fluoride and a mixture of at least two abovementioned monomers.

20. (currently amended) The process as claimed in claim 11, characterized in that ~~the mixing is carried out, with~~ said process comprises stirring, with high shearing, to form the miniemulsion, microemulsion or emulsion, ~~of~~ an aqueous phase comprising:

- water,

- said at least one water-soluble alkoxyamine,

- optionally an anionic, cationic, nonionic, amphoteric, quaternary or fluorinated, emulsifying agent, and

an organic phase comprising:

- said at least one monomer,

- an optional organic solvent,

- an optional cosolvent, which exhibits a solubility in water at 25°C of less than 1×10^{-6} g/liter and is liquid at the ~~polymerization~~ process temperature, and at a pressure sufficient to prevent the phases of the emulsion from boiling and sufficient for its various constituents to remain essentially in the emulsion, and

-optionally at least one free radical initiator selected from organic peroxides, inorganic peroxides, or azo type.

21. (previously presented) The process of claim 20, characterized in that said temperature is between about 10 and 130°C.

22. (previously presented) A process for the preparation of multiblock polymers, characterized in that, in a first stage, a first block is prepared from one or more monomers according to the process described in claim 11, then a second monomer or a mixture of second monomers intended for the preparation of a second block is introduced without halting mixing and without cooling or other interruption, optionally followed by the introduction of a third monomer or a mixture of third monomers, at conditions for forming each of the blocks, optionally followed by a stage of conversion of the residual monomers using an additional supply of free radical initiator(s) of organic peroxide, inorganic peroxide or of azo type.

23. (previously presented) A polymer particle, characterized in that it comprises a polymer produced according to the process of claim 11.

24. (previously presented) The polymer particle as claimed in claim 23, characterized in that the polymer is a block polymer.

25. (currently amended) The particle as claimed in claim 24, characterized in that the polymer is selected from the group consisting of

polystyrene-b-poly(methyl methacrylate),
polystyrene-b-polystyrenesulfonate,
polystyrene-b-polyacrylamide,
polystyrene-b-polymethacrylamide,
poly(methyl methacrylate)-b-poly(ethyl acrylate),
polystyrene-b-poly(butyl acrylate),
polybutadiene-b-poly(methyl methacrylate),
polyisoprene-b-poly(styrene-co-acrylonitrile),
polybutadiene-b-poly(styrene-co-acrylonitrile),
poly(styrene-co-butyl acrylate)-b-poly(methyl methacrylate),
polystyrene-b-poly(vinyl acetate),
polystyrene-b-poly(2-ethylhexyl acrylate),
polystyrene-b-poly(methyl methacrylate-co-hydroxyethyl acrylate),
polystyrene-b-polybutadiene-b-poly(methyl methacrylate),
polybutadiene-b-polystyrene-b-poly(methyl methacrylate),

polystyrene-b-poly(butyl acrylate)-b-polystyrene,

polystyrene-b-polybutadiene-b-polystyrene,

polystyrene-b-polyisoprene-b-polystyrene,

poly(perfluorooctyl acrylate)-b-poly(methyl methacrylate),

poly(perfluorooctyl acrylate)-b-polystyrene,

poly(perfluorooctyl acrylate)-b-poly(behenyl acrylate),

poly(perfluorooctyl acrylate)-b-poly(stearyl methacrylate),

poly(n-octyl acrylate)-b-poly(methyl methacrylate),

poly(methyl methacrylate)-b-poly(butyl acrylate)-b-poly(methyl methacrylate),

poly(methyl methacrylate)-b-poly(methoxyethyl acrylate)-b-poly(methyl acrylate), and

poly((meth)acrylic acid)-b-poly(butyl acrylate)-b-poly((meth)acrylic acid).

26. (previously presented) A combination of polymer particles as claimed in claim 23, characterized in that the mean diameter of said polymer particles is less than or equal to 2 μm.

27. (previously presented) A combination of polymer particles as claimed in claim 26, characterized in that the mean diameter of said polymer particles is preferably between 20 and 1000 nm.

28. (previously presented) A latex comprising a combination of polymer particles as defined in claim 27.